alerts. Precision was measured using Positive Predictive Value (PPV), defined as the probability of detected article to have public health relevance, where relevance was determined by EI experts (human filter) who evaluated 13,679 English articles scanned within 24 hours. EU national public health experts supported sources and interface revision.

Results: Alternative search strategies successfully reduced false positives without reducing sensitivity (PPV from 15% to 30%). Best refinement of search strategies requires using fewer keywords (diseases basic definitions), adjusting their weights with an extensive use of negative values and using epidemiological terms in the keywords combinations. New alerts have been set up for English and translation to other EU languages is ongoing with the support of public health experts. Expansion of the sources and restructuring of the interface are underway based on EU Member States feedback.

Conclusion: Results indicate that optimization of search strategies and revision of sources with the support of national public health experts can help MedISys reaching its potential. Plans for 2010 include extension of the analysis to all diseases and languages and capacity building within the EU to encourage knowledge and use of the revised system. ECDC plans to create customized versions for EU Member States (country editions) and, on request, special versions for mass gathering surveillance.

doi:10.1016/j.ijid.2010.02.2096

57.014

Changing trend of measles and rubella in Nepal: Is it time to introduce rubella immunization?

S.P. Dumre[1,*], S. Malla[2], G. Shakya[2], K. Kc[2], P. Ghimire[3]

[1] *Thammasat University, Faculty of Allied Health Sciences, Pathumthani, 12121, Thailand*
[2] *National Public Health Laboratory, Kathmandu, Nepal*
[3] *Tribhuwan University, Kathmandu, Nepal*

Background: Measles and rubella are serious public health problems in many developing countries, though the incidence is significantly reduced in developed countries. Measles is under national immunization activity in Nepal while there is no such program for rubella. The lack of information on the burden of rubella is one of the obstacles for such initiatives.

Methods: The present study was conducted from January 2003 through December 2007 under national measles surveillance program. Blood specimens from measles like cases (based on case definition) during any outbreak throughout the country were collected, serum separated, transported to National Measles Referral Laboratory and tested for detection of anti-measles IgM by ELISA technique. Measles negative specimens were further tested for anti- rubella IgM to analyze the trend.

Results: Of the total cases, 43.65%(805/1844) and 42.95%(424/987) were found to be positive for measles and rubella respectively. Distribution of measles cases was observed as 82.7%(158/191), 72.6%(600/827), 6.4%(19/295), 2.8%(6/214) and 6.9%(22/317) in the year 2003, 2004, 50.75%(105/207) and 31.5%(93/295) in the year 2003, 2004, 2005, 2006 and 2007 respectively. We found that the number of measles cases significantly decreased ($P < 0.001$) with the increasing rubella cases ($P < 0.0001$) till 2005 and rubella remained at high burden level in the following years as well. In the recent years, most of the clinical measles cases were turned out to be rubella by results of laboratory investigation.

Conclusion: The incidence of measles has been rapidly reduced to a minimal after the measles immunization campaign (started at late 2004) and the routine immunization activity; however the emerging and increasing trend of rubella infection is a serious concern in Nepal. Continuation of measles immunization with the introduction of rubella immunization (both routine and supplementary) into national immunization strategy is the key measure to address this emerging problem.

doi:10.1016/j.ijid.2010.02.2097

57.015

Influenza A activities in Shanghai, China during 2004 to 2009

L. Jiang[1,*], L.-W. Ju[1], X. Lv[1], J. Yang[1], Q. Shi[1], Y. Tan[2], H. Shen[2], Q.-W. Jiang[1]

[1] *School of Public Health, Fudan University, Shanghai, China*
[2] *The Minghang District Center of Diseases Preventive and Control, Shanghai, Shanghai, China*

Background: Influenza has been a considerable public health problem in China as well as the global for it remains inadequatedly controlled. The knowledge about the epidemiological features is valuable for surveillance strategy, and molecular characteristics of viruses are useful for selection of variant strains.

Methods: The seasonal influenza was intensively monitored for the entire year in Shanghai area during 2004 to 2009. The clinical activities of the Outpatient Department of Minhang Centre Hospital were documented. The respiratory specimens from patients with influenzalike illness were collected and then identified by viral isolation and RT-PCR. The molecular characteristics of A/H1 and A/H3 viruses were also analyzed by sequencing and comparing the genetic diversity of HA segment respectively.

Results: Two separated high peaks of influenza appeared between February to March and between July to August, which were consistently correlated with the waves of ILI consultant proportion. Obviously succession of predominant influenza A viruses was observed while influenza B virus kept in a mild level: A/H3 predominated in 2004 and 2005, and then was subrogated by A/H1 in 2006. A/H3 increased again in 2007 till the winter of 2008, but A/H1 became dominated in the summer of 2008, and maintained dominating in 2009. All the isolates from both subtypes were similar to the strains of the same period in other countries and regions. Phylogenetic analysis of HA1 subunit revealed a linear trunk with succession of A/H3 isolates in different influenza seasons, and a multi-directional tree with cluster of A/H1 isolates in same influenza season.